



CENTRAL ASIAN JOURNAL OF THEORETICAL AND APPLIED SCIENCES

Volume: 03 Issue: 08 | Aug 2022 ISSN: 2660-5317
<https://cajotas.centralasianstudies.org>

Technological Approach to Forming Critical Thinking In Students in the Process of Teaching the Subject of “Upbringing”

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Received 27th Jun 2022, Accepted 18th Jul 2022, Online 10th Aug 2022

Abstract: This article discusses the stages of development of critical thinking in students and approaches to the teaching process. In particular, during the teaching of "Education" in primary classes, the pedagogical possibilities of developing critical thinking in students, technological approaches to the planning and organization of these possibilities are highlighted.

Keywords: pedagogical technologies, upbringing, critical thinking, education, primary school.

The goals of using interactive methods of education have been defined in order to turn the library into a true center of spirituality, enlightenment, and culture (Kupaysinovna, K.S. 2021).

Today, serious reforms are being carried out in Uzbekistan to adapt the education system to modern requirements. In the Address of the President to the Parliament, the priority aspects of the reforms implemented in the education system, as well as in all areas, were indicated. In particular, the important aspects related to the effective continuation of the reforms started in the preschool education system, improvement of the quality of education and upbringing in general education schools, strengthening the integration of higher education with academic science and production, and support of talented, creative, critical-thinking young people have been expressed.

It is known that the stage of development of critical thinking in students begins with primary education (Nishonov, M.S. et all. 2021). Because at this stage, students begin to learn the basics of science from a scientific point of view.

In the process of teaching the subject of “Upbringing” in primary classes, there are great pedagogical opportunities for developing critical thinking in students, and these opportunities arise based on the technological approach to planning and organizing lessons.

It is known that textbooks are one of the main means of providing thorough knowledge to students. The following scientific-methodological requirements are set for the textbook created for the students of general secondary educational institutions in the CONCEPT of the subject "Upbringing":

- reflecting the latest achievements of science and technology;
- integrity of academic subjects;

- subjects of education are presented in a simple, simple, understandable and fluent language, strictly following the rules of the literary language;
- adherence to strict sequence and consistency;
- -enrichment with relevant illustrations that do not contradict the mentality of the people of Uzbekistan;
- questions and tasks are clearly expressed;
- pedagogical technologies in teaching students to think, write, describe, draw, calculate, perform practical work, conduct experiments;
- the same concept should not be expressed by two different terms, and uncertainty in quoting dates should not be allowed;
- Include text and pictures, explanatory vocabulary, technical creativity, logical and innovative thinking, and modeling assignments to guide students to a successful social life (Muslimov N.A. et all. 2015).

Education textbooks created in accordance with these requirements have opportunities to use innovative technologies in the educational process. In the textbooks prepared for grades 1-4, the texts expressing the content of the subject, problem questions, drawings, tasks directing students to creative activities, imply the organization of students' activities in various forms and a technological approach to the educational process.

The first studies on the technological approach to teaching, that is, on ensuring that the educational process is as repeatable as the production process, were carried out by American scientists in the 60s of the last century. The concept of "teaching technology" was introduced to science for the first time by the American scientist B. Skinner.

Famous scientists in Uzbekistan S. Ashirbaev, R. Kh. Joraev, N. S. Sayidahmedov, B. L. Farberman, Russian scientists V. P. Bespalko, V. S. Bezrukova, M. V. Klarin in their research "pedagogical technology", who revealed the concept of "educational technology" and the essence and importance of the technological approach to teaching from a scientific point of view.

A technological approach to a repetitive pedagogical process is considered a more complex process than production. This is hindered by the diversity of educational (educational) issues, the content of education and the content of educational material, the acquisition of knowledge depending on the individual characteristics of students and other factors. In fact, all forms, methods and tools used to improve the educational process are highly effective only in the hands of their owner, that is, the educational process is managed based on the principle of personal approach (Tolipov, U.K. et all. 2006).

Even so, as a result of the research on creating a unified, effective approach to the educational process, the research of the US pedagogues B. Blum, D. Kratvol, N. Gronlund, J. Carroll, J. Block, L. Andersen and others, as a result of the researches of reproducible and guaranteeing the final result educational technology was created.

To education technological the approach is to divide and divide the educational process into interrelated stages and actions; to achieve the desired result from education. to coordinate and step-by-step implementation of actions for; means to perform all the designed work and actions in the same way.

The technological approach is, first of all, not a description, but a practical instructional structure that allows the realization of the designed results.

The essence of the technological approach to education is the clarity of the educational goal and the ability of the student to master each educational module in a strictly defined sequence and perform independent activities in order to achieve it. Such an approach includes all aspects of the teaching system, from defining the goal and designing the learning process, to determining the effectiveness of the new teaching system, testing and popularizing it. It is the reproducibility of its action procedures and the idea of applying them to the full educational process, which ultimately makes this process no longer dependent on the teacher (Ishmuhammedov R. 2010).

In fact, if the educational process is completely repetitive, divided into separate sessions (episodes), the teacher's task will be to play the role of organizer and consultant in organizing learning with pre-prepared (not necessarily self-composed) material.

There are two main ideas behind the technological approach to teaching:

- designing the educational process in advance, turning the activity of the teacher in the educational center into a guiding subject, limiting his activity to the functions of organization and counseling;
- Is to create conditions for students to act independently in educational activities, to perform educational tasks in cooperation.

That is why even "average" teachers can achieve high results in conditions where experts in the content and process of teaching are prepared to plan, create and apply teaching systems. As V.P. Bespalko pointed out this phenomenon, pedagogical technology is the design of expressing the process that forms the student's personality, which guarantees pedagogical success, without depending on the teacher's skills (Kamoldinov M. ET all. 2010).

Today's requirement is to form creative thinking in students, not just to repeat the learning process.

A distinctive aspect of perception in the conditions of developmental education is the subjective state of the student during the active activity of leveling the unmastered field, comparing, determining the laws, finding different ways to solve the problem, and practically mastering the method that is optimal for the student, as a result of the activity, the student not only learns information , the team feels and understands the sense of connection to research and satisfaction with the results .

The development of critical thinking in students is carried out step by step, taking into account the levels of mastering the educational material. Mastery levels are divided into 4 types:

1. Recall, restoration in memory - level of mastery.
2. Reproductive - mastery level.
3. Productive (productive) – mastery level.
4. Creative - level of mastery.

Recall, the level of recovery in memory	Reproductive level	Productive level	Creative level
learning material (content) necessary to explain or	mastering educational material designed to solve one type of problem or exercises (questions) based on a	non-standard (non-standard, non-standard, non-standard or non-standard), i.e. mastering tasks that are	to be able to apply students' knowledge and skills in different situations, to search for different ways to solve problems (methods

justify any studied material	sample solution)	(ready-made not of the same type as the given type of exercise	not shown or told by the teacher) and mastering learning material based on application
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Teaching methods are the main means of ensuring that students achieve mastery levels. Therefore, showing educational methods as a way of cooperative activity of the teacher (teaching) and the learner (learning) to achieve educational goals allows to group them according to their characteristics and the results of educational activities as follows:

Group 1: ready learning activities and methods that provide learners with knowledge acquisition at the 1st level;

Group 2: learning activities that describe what is remembered and methods that provide students with knowledge and skills at the 2nd level;

Group 3: deliberative, partially-researched learning activities and methods that provide learners with knowledge and skills at the 3rd level;

Group 4: independent research activities and methods that ensure knowledge acquisition at the 4th level (Golish L.V. et all. 2012).

In contrast to the careful development of the methodical development of the lesson encouraging the teacher to perform effectively, the educational technology is oriented towards the activity of the students, and it serves to create the necessary conditions for the independent mastering of the educational materials, taking into account the individual and joint activities of the students. The central problem of educational technology is to ensure the achievement of educational goals through the development of the learner's personality.

It is known that a project is a product of action aimed at developing the content of pedagogical activity, guaranteeing its results based on a specific plan and goal. There are different definitions of the concept of design in the literature.

Designing is the creation of a future model of activity, the selection of ways and means for the time set in the existing conditions, the separation of stages of goal achievement, the formation of separate tasks for them, the determination of the means and ways of conveying educational information and feedback (Golish L.V. et all. 2012).

Designing - represents practical actions aimed at developing the content of an activity or process by estimating, predicting, planning the expected result, based on initial data.

Designing the educational process - developing its project (scheme) taking into account all factors for the effective organization of a separate educational process.

In the design of educational processes, it is necessary to correctly define the content of education, the goal of education, the expected result, the correct selection of educational methods, forms and tools, the development of specific criteria for evaluating the knowledge, skills and qualifications of students in advance, their correct implementation and harmony with each other within the time allotted for the training. attention is considered appropriate.

The development of critical thinking in students is carried out step by step, taking into account the levels of learning material. Mastery levels are divided into 4 types:

1. Determining the purpose and result of the lesson.
2. Development of control tasks and evaluation criteria.
3. Understanding educational resources .
4. Determining the teaching and learning strategy .
5. Choose the type of lesson .
6. Development of a technological map of the lesson .

Determining the purpose and result of the lesson is the most important factor in the teaching and learning process, and it is they who take the leading place in the educational process. The purpose and result of the lesson is determined based on the requirements of the subject content. At the same time, it should be noted that the purpose of the lesson should not be determined from the point of view of what kind of knowledge, skills, and abilities are given to the student by the teacher, but based on the importance of what kind of knowledge, skills, and abilities are acquired by the students in the lesson. In essence, the purpose of the lesson determines the movement of the teacher and students towards the overall results. Therefore, the purpose of the lesson should be clearly stated, that is, the purpose of the lesson should be clear.

In order to achieve the clarity of the purpose of the lesson, the teacher is required to pay attention to the following:

1. the didactic process that occurs in the lesson can fully ensure the achievement of the educational goal under certain conditions and within the specified time;
2. the possibility of making a clear conclusion about the level of goal realization at the end of the training process.

Accordingly, it can be said that the educational goals are determined by the educational results expressed in the students' actions.

The next most important component of educational technology is the expected outcome. Consequently, it reflects the effectiveness of the teaching process and describes the degree of achievement of the goal, the teaching and learning process is completed when the result corresponds to the set goal.

The project is manifested in a program, model, technological map and other forms, and is based on a scientific or creative idea. Designing is based on the system "**idea - goal - expected result - estimate - prediction – planning**" (Muslimov, N.A. et all. 2015). In order to create a project, a pedagogue must have such competencies as step-by-step illumination of the process, clear definition of the goal, determination of tasks that correspond to the goal, formation of the content of the educational material, development of a system of questions and assignments, justification of the methodology of the process, diagnosis of the student's level of knowledge and assessment of his education level. .

The main stages of the technological approach to teaching students to think critically in education are as follows:

- 1st stage: create a project;
- 2nd stage: assessment of students' activities;
- 3rd stage: organizing the pedagogical process:

4th stage: ensuring the effective course of the pedagogical process;

5th stage: monitor student performance.

Also, the pedagogue to create the project:

- create a project;
- step-by-step illumination of the process;
- clearly defining the goal;
- determining appropriate tasks;
- formation of the content of educational material;
- developing a system of questions and assignments;
- justification of the methodical structure of the process or event;
- it is necessary to have the skills and abilities to diagnose the student's level of knowledge and to assess the level of education.

Educational project the method of organizing independent educational activities aimed at students' search, research and solution of problems, formalizing the result (solution) in the form of a product; means of educational activity aimed at solving practical tasks based on theoretical knowledge; is a didactic tool aimed at developing, educating, teaching, enriching knowledge, strengthening and forming skills.

Critical thinking, first of all, requires comprehensive thinking about a specific situation, issue or problem. Multidisciplinary thinking requires students to draw on multiple ideas when completing assignments, problems, and tasks. In contrast, one-sided thinking refers to focusing on only one true idea.

However, in observation, one cannot deny one of the one-sided and multiple-sided thinking, because the single-sided and the multiple-sided thinking are equally important in the formation of critical thinking. In this case, when completing the task, the student looks for several options for a solution (gives evidence, interprets, that is, thinks comprehensively), and then stops at a single solution that guarantees the most optimal result (one-sided thinking).

Critical thinking emerges as a product of social and independent thinking. The starting point of critical thinking is to obtain new information by finding the necessary evidence, asking questions and considering the problems (tasks) to be solved. Evidence used in problem analysis includes three elements.

The primary criterion is an idea that is supported by valid evidence. In terms of proof, educational material and personal experience are used. Underlying all the elements of the argument are statements, arguments and arguments.

In order to teach primary school students to think critically, pedagogues should pay attention to the following methods and tools:

1. The teacher does not force students to think like him, that is, he refrains from asking them to think in the same way.
2. Give students a chance to think.
3. Accepting different ideas and opinions, focusing on explaining the essence of the matter rather than memorizing and memorizing existing knowledge during the teaching process.

4. Emphasis on the definition of scientific terms and concepts, not just memorizing laws and rules, but understanding their content and understanding their essence. In this case, the method of analysis (analysis) and synthesis (description) of certain definitions, rules and laws is useful in explaining its essence to students.
5. Creating conditions for students to understand the phenomenon and essence, cause and effect of each science, and if necessary, each topic, to understand connections, relations and balances within the science and between disciplines, to compare, contrast and draw logical conclusions.
6. Point, explaining to them that making mistakes is natural and not to be feared.
7. Convince students that they will not be laughed at with their new ideas.
8. Teaching to use methods that focus on solving a problem in several ways, rather than solving several problems in one way.
9. Stimulate all forms of creative thinking in students.
10. Ensuring students' activity in the educational process.
11. To instill in each student a sense of confidence in their ability to think critically, etc.

In the design of educational processes, it is necessary to correctly define the content of education, the goal of education, the expected result, the correct selection of educational methods, forms and tools, the development of specific criteria for evaluating the knowledge, skills and qualifications of students in advance, their correct implementation and harmony with each other within the time allotted for the training. attention is considered appropriate.

In the technological approach to education, person-centered learning is important in teaching students to think critically. Because individual-oriented education serves to educate qualities such as independence, initiative, sense of responsibility, and critical thinking in the personality of the student.

In modern conditions, it is demanded that the educational process should be directed to the development, socialization and training of independent, critical, creative thinking abilities. Education that can show these possibilities is called person-oriented education (Muslimov, N.A. et all. 2015).

According to the conclusions of pedagogues and psychologists, the student's success in learning conditionally depends on the following:

1. 50% of success depends on stable individual characteristics of the student, such as cognition, memory, attention.
2. 25% of success depends on the student's motivation to study (aspiration, desire, desire, goal).
3. 3.25% to the quality of teaching (Kamoldinov, M. et all. 2010).

In this case, the student is not adapted to the educational system, but it is allowed to develop taking into account the individual characteristics of the student, his self-development, independent study, manifestation of his identity, understanding, observation, testing in his practical activities, expressing new ideas and thoughts based on the characteristics of activation. , to give freedom to search for effective ways of solving existing problems, conditions are created for the development of the student's creative and critical thinking.

Any student strives to activate and demonstrate his unique nature, character trait. In the course of the lesson, the teacher should use methods that serve to develop students' thinking (problem research, research, dialogue, heuristic conversation, discussion, working in groups) and create such conditions that, as a result, the initially neutral object for the student unexpectedly acquires a subjective character. For

this, the content of educational materials is processed by the teacher in a way that interests the student, matches his personal experience, encourages thinking, and has a creative approach (Olimov Q.T. 2011).

Problem-based learning technology plays a leading role in teaching primary school students to think critically. **Problem-based education** is a new system of rules for the use of previously known methods of education and training, which are created taking into account the process of logical thinking (analysis, synthesis, generalization...) and the laws of students' investigative activity (problematic situation, interest in learning, needs, etc.).

In problem-based education, almost a large part of knowledge is not given to students ready, but is acquired by students in the process of independent cognitive activity in the conditions of problematic situations.

The main purpose of using problem-based education in teaching the science of "education" is to encourage students in the process of active learning, the tasks of which are:

- teaching students to think independently and freely;
- development of creative, logical and critical thinking;
- ensure that the acquisition process is active;
- Finding solutions to problems is the formation of skills and abilities.

The technology of problem-based education is based on analysis-synthesis activities carried out in the debates and observations of learners. This is explained by the fact that education is a research type.

Problem-based teaching has great potential in revitalizing the cognitive activity of students in conscious and solid acquisition of knowledge, determining their active attitude to the environment. B.B. Aysmontas analyzes the advantages and disadvantages of problem-based education as follows:

Advantages	Disadvantages
<p>1. As the high level of independence in acquiring knowledge forms the views of students, it (problematic education) helps to form the worldview of students.</p> <p>2. Personal motivations of the student form their interest in learning.</p> <p>3. It develops students' thinking ability.</p> <p>4. It helps the formation and development of students' dialectical thinking, it ensures the emergence of new relationships in the phenomena and laws studied by them.</p>	<p>1. In the formation of practical skills and competencies, it is used to a lesser extent than other types of education.</p> <p>2. It takes more time to master the same amount of knowledge than other types of education.</p>

The essence of problem-based teaching is the teacher's management of students' cognitive activities to acquire new knowledge by creating a problem situation in their educational work and solving educational tasks, problems and questions.

An important aspect of using problem-based learning in the teaching of education is that the teacher must have a good understanding of both its educational and educational functions. The teacher should never give students a ready-made truth (solution), but should motivate them to acquire knowledge, help them to process in their mind the information, event, time and events necessary in training and life activities.

Problem-based teaching has great potential in revitalizing the cognitive activity of students in conscious and solid acquisition of knowledge, determining their active attitude to the environment.

It is necessary to pay attention to the stages and levels of using problem-based learning in teaching students to think critically in grades 1-4.

Problematic stages of education	M uammoli education levels	Teacher and student activities
I - stage	Level of learning	The teacher creates a problem and shows how to solve it.
II - stage	Degree of cooperation	A problem is created by the teacher and the solution is determined together with the students.
III - stage	Independent degree	The problem is created by the teacher, the solution of the problem is found by the student independently.
IV - stage	Creative level	The teacher announces the topic, the student creates a problem, independently finds a solution and concludes.

In problem-based teaching, the teacher organizes the students' cognitive activities, so that the students independently experience intellectual difficulties based on the analysis of the materials on the topic, draw conclusions and generalize, form relationships and laws between events, and strive to apply the acquired knowledge to a new situation.

In some cases, the teacher should not only arouse interest in the students, but also not solve the educational problem by himself, and in other cases , it is necessary to guide the independent learning and learning activities of the students in solving the educational problem, as a result, the ability of independent acquisition of knowledge is formed in the students, and by forming hypotheses and proving them on the basis of evidence, a new mental finds methods of action, develops the ability to transfer knowledge from one problem to another, develops attention and imagination.

In the process of problem-based teaching, as students acquire knowledge and mental movement methods by perceiving educational materials in a problem situation, independently analyze what they have learned, formulate educational problems by making hypotheses and proving them, it ensures the intellectual activity of students.

In conclusion, it can be said that the task of the technological approach to the educational process is to ensure that students achieve effective mastery of the system of knowledge and the methods of mental and practical activities, to create in them the ability to creatively apply the acquired knowledge in a new situation, to know, to strengthen and to form the skills and abilities of critical thinking .

References:

1. The President of the Republic of Uzbekistan dated January 28, 2022 "On the development strategy of New Uzbekistan for 2022-2026" APPENDIX 1 to Decision No. PF-60 .
2. Concept of the subject "Upbringing" for students of general secondary educational institutions. APPENDIX 3 to the decision of the Council of Ministers No. 422 of July 6, 2020.
3. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated July 6, 2020 "On measures to gradually implement the science of "Upbringing" in secondary educational institutions " APPENDIX 3 to Decision No. 422 .
4. Golish L.V., Faizullaeva D.M. Pedagogical technology design and planning: Instructional methodology guide/ Innovative educational technology series. Tashkent. "Economics" 2012. - pp. 44-45.
5. Muslimov N.A., Usmonboeva M.H., Sayfurov D.M., Toraev A.B. Innovative educational technologies. Tashkent: 2015. Page 5.

6. Tolipov O.K., Usmonboeva M. Theoretical and practical foundations of pedagogical technologies. Tashkent. Science and Technology Publishing House, 2006.
7. Nishonov Makhmudjon Sobirovich, & Tajiboeva Guzalkhon Makhmudjanovna. (2022). TECHNOLOGIES FOR FORMING CRITICAL THINKING IN PRIMARY SCHOOL STUDENTS. European Journal of Agricultural and Rural Education, 3(2), 41-44.
8. Ishmuhammedov R. Innovation in education. Tashkent. Science and Technology Publishing House, 2010.
9. Olimov Q.T. Pedagogical technologies. Tashkent. Science and technologies publishing house, 2011. - 275 p.
10. Kamoldinov M., Vakhobjonov. Fundamentals of innovative pedagogical technology, questions, answers. Tashkent. Interpretation, 2010. Page 91.
11. Kupaysinovna, K. S. (2021). Advanced Experiences In The Use Of Digital Technologies In Teaching Fine Arts (On The Example Of Finland And South Korea). Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(7), 939-946.